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L11: Entry 14 of 87

File: USPT

Jun 26, 2001

DOCUMENT-IDENTIFIER: US 6251849 B1

TITLE: Cleaning agent for hard surfaces based on cationic polymer soil-release compounds

Detailed Description Text (7):polymer c: polymethacrylamidopropyl trimethyl ammonium chloride-co-2-ethylhexyl acrylate in a ratio of 9:1 parts by weight

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L11: Entry 24 of 87

File: USPT

Jul 13, 1999

DOCUMENT-IDENTIFIER: US 5921912 A

TITLE: Copolmer formulations for breaking oil-and-water emulsions

CLAIMS:

1. A method of resolving oil-in-water and water-in-oil emulsions in crude oil production and processing systems comprising adding to the aqueous phase of said systems a copolymer treatment effective for the purpose, in an amount effective for resolving said emulsions, said copolymer comprising a hydrophilic cationic monomer subunit selected from the group consisting of acryloyloxyethyltrimethyl ammonium chloride, and methacrylamidopropyltrimethyl ammonium chloride and a lipophilic, nonionic monomer subunit selected from the group consisting of 2-ethylhexyl-acrylate, and hydroxypropylacrylate.
13. The method of claim 1 wherein said copolymer treatment is selected from the group consisting of copolymers of about 40 to 70% methacrylamidopropyltrimethyl ammonium chloride and 30 to 60% 2-ethylhexyl acrylate.

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File: USPT

Jul 8, 1997

DOCUMENT-IDENTIFIER: US 5645968 A

TITLE: Cationic Toner processes

Brief Summary Text (6):

In the present invention, a process for the preparation of a positively charging toner is illustrated, and which process includes in embodiments a number of steps, of which one is comprised of generating a cationic resin latex derived from at least one olefinic monomer such as styrene, butyl acrylate, butadiene and the like, a cationic monomer such as vinylpyridine, acrylamide, 3-methacryloxy-2-hydroxypropyltrimethyl ammonium chloride salt and the like, a cationic free radical initiator such as 2,2'-azobis(N,N'-dimethylene isobutyramidine) dihydrochloride and the like, a nonionic surfactant and cationic surfactant. Another step involves adjusting the cationic latex to a pH of from about 8 to about 14, and preferably of from about 10 to about 12 utilizing a base such as an alkali hydroxide, or an alkali metal carbonate, such as sodium hydroxide or sodium carbonate, and followed by adding a pigment dispersion with an anionic surfactant thereby resulting in a composite aggregate comprised of cationic emulsion particles and pigment, wherein the composite particle has a particle size of from about 5 to about 9 microns (volume average diameter throughout) and a geometric size distribution of from about 1.2 to about 1.4. Subsequently, the composite resulting is heated to a temperature above the glass transition temperature of the latex to afford coalesced toner particles, followed by filtration, washing, and drying to yield positive charging toners.

Detailed Description Text (3):

Preparation of a latex comprised of 30 percent resin particles in water containing 1.7 percent nonionic surfactant (ANTAROX.TM.) and 1.8 percent of cationic surfactant (SANIZOL B.TM.), and wherein the resin is derived from styrene, butyl acrylate, and 3-methacryloxy-2-hydroxypropyltrimethyl ammonium chloride, dodecanethiol, carbon tetrabromide and an anionic initiator (ammonium persulfate).

Detailed Description Text (4):

A 1 liter Buchi reactor equipped with a mechanical stirrer was charged with styrene (328 grams), butyl acrylate (72 grams), dodecanethiol (12 grams), carbon tetrabromide (4 grams), 3-methacryloxy-2-hydroxypropyltrimethyl ammonium chloride (16 grams), water (500 grams), ANTAROX.TM. (8.6 grams), SANIZOL b.TM. (9 grams) and ammonium persulfate (4 grams). The mixture resulting was heated to 70.degree. C. under nitrogen atmosphere for a duration of 6 hours. A 10 gram sample of this resin mixture was then freeze dried and evaluated with the following results: a resin number average molecular weight of 10,088 and a resin weight average molecular weight of 75,291, as measured by gel permeation chromatography using polystyrene as the standard. The glass transition of the resin was found to be 56.degree. C. using the DuPont differential scanning calorimeter.

Detailed Description Text (10):

Preparation of a latex comprised of 30 percent resin particles in water containing 1.7 percent nonionic surfactant (ANTAROX.TM.) and 1.8 percent of cationic surfactant (SANIZOL B.TM.), dodecanethio, carbon tetrabromide and a cationic initiator (2,2'-azobis(N,N'-dimethylene isobutyramidine) dihydrochloride), and wherein the resin is derived from styrene and butyl acrylate, and 3-methacryloxy-2-hydroxypropyltrimethyl ammonium chloride.

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L11: Entry 16 of 87

File: USPT

Feb 6, 2001

DOCUMENT-IDENTIFIER: US 6183844 B1

TITLE: Inkjet printing medium comprising multiple coatings

Detailed Description Text (15):

A monomer solution was prepared by admixing 470 grams of methyl methacrylate, 706 grams of n-butyl acrylate, 940 grams of styrene, and 4783 grams of the above ethylenically unsaturated quaternary ammonium chloride solution.

di, Carlson

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File: USPT

Jan 28, 1997

DOCUMENT-IDENTIFIER: US 5597675 A

TITLE: Dispersing polymers for phthalocyanine pigments used in organic photoconductors

Detailed Description Text (8):

A combination of 100 g methyl methacrylate, 131.3 g butyl acrylate, 12.5 g hydroxybutyl acrylate, 3.75 g QDM-R monomer (quaternary ammonium chloride methacrylate monomer available from Nitto Chemical Industry Co. Ltd., Tokyo, Japan) in 20 g ethanol, 2.5 g azobisisobutylnitrile initiator (Vazo-64, available from DuPont Chemicals, Wilmington, Del.) and 355 g of methyl ethyl ketone was mixed well in a brown bottle with a tight screw cap. The bottle was tumbled in a constant temperature water bath at 60.degree. C for 62 hours giving rise to a clear, viscous, pale yellow polymer solution. The percent total solids was determined to be 40% equating to a quantitative conversion of the monomers. No residual monomer odor could be detected.

WEST Search History

DATE: Monday, February 03, 2003

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>			
L9	L7 and ethylhexyl acrylate and butyl acrylate	6	L9
L8	L7 and ethyl hexyl acrylate and buytl acrylate	0	L8
L7	L5 or MQUAT	115	L7
L6	L5 same acrylate	28	L6
L5	methacryloyloxyethyl trimethyl ammonium chloride	112	L5
<i>DB=USPT; PLUR=YES; OP=ADJ</i>			
L4	(\$11phospholyl).ti,ab.	3	L4
L3	(\$11phospholyl).ti.	0	L3
L2	tetramethylphospholyl	15	L2
L1	5763548.pn.	1	L1

END OF SEARCH HISTORY

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L11: Entry 13 of 87

File: USPT

Jul 24, 2001

DOCUMENT-IDENTIFIER: US 6265049 B1

TITLE: Inkjet printing media containing substantially water-insoluble plasticizer

Detailed Description Text (6):

A monomer solution was prepared by admixing 470 grams of methyl methacrylate, 706 grams of n-butyl acrylate, 940 grams of styrene, and 4783 grams of the above ethylenically unsaturated quaternary ammonium chloride solution.

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L11: Entry 2 of 87

File: PGPB

Jan 30, 2003

DOCUMENT-IDENTIFIER: US 20030020187 A1

TITLE: Processes for making bichromal particles for gyiricon displays

Detail Description Paragraph (36):

[0047] Preparation of Cationic LatexA latex is prepared comprising 30 percent resin particles in water containing 1.7 percent nonionic surfactant (ANTAROX.TM.) and 1.8 percent of cationic surfactant (SANIZOL B.TM.), dodecanethiol, carbon tetrabromide and a cationic initiator (2,2'-azobis(N,N'-dimethylene isobutyramidine) dihydrochloride). The resin is derived from styrene and butyl acrylate, and 3-methacryloxy-2-hydroxypropyltrimethyl ammonium chloride.

Detail Description Paragraph (37):

[0048] A 1 liter Buchi reactor equipped with a mechanical stirrer is charged with styrene (328 grams), butyl acrylate (72 grams), dodecanethiol (12 grams), carbon tetrabromide (4 grams), 3-methacryloxy-2-hydroxypropyltrimethyl ammonium chloride (16 grams), water (500 grams), ANTAROX.TM. (8.6 grams), SANIZOL B.TM. (9 grams) and 2,2'-azobis(N,N'-dimethylene isobutyramidine) dihydrochloride (13.5 grams). The resulting mixture is heated to a temperature of 70.degree. C. under a nitrogen atmosphere for 6 hours. A 10 gram sample is then freeze dried and evaluated as having a number average molecular weight (M.sub.n) of 9,390, and a weight average molecular weight (M.sub.w) of 70,291 for the resin, as measured by gel permeation chromatography using polystyrene as standard. The glass transition temperature of the is 60.degree. C. as measured using a DuPont differential scanning calorimeter (DSC).